

Notice of Allowability

Application No.

10/805,951

Examiner

Vishal Patel

Applicant(s)

SHIBATA ET AL.

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1 and 2.
3. ☒ The drawings filed on 22 March 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Boutell on 1/5/04.

The application has been amended as follows:

In the abstract:

Line 1, delete "To provide an" and replace with --An--.

Line 10, delete "the gasket" and replace with --a bight section--.

In the specification:

Paragraph [0004], line 9, after "In", add --the--.

Paragraph [0004], line 10, change "leak" to --leakage--.

Paragraph [0005], line 2, delete "embodiment" and replace with --example--.

Paragraph [0006], line 3, delete "it" and replace with --the gasket--.

Paragraph [0009], line 10, replace "sealing" and replace with --seal--.

Paragraph [0010], line 3, replace "sealing" and replace with --seal--.

Paragraph [0013], line 8, after "opponent", add --or opposing--.

Paragraph [0031], line 3, delete "with" and add --having two legs interconnected by a bight section and having--.

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Paragraph [0031], line 3, after "opening", add --between the legs--.

Paragraph [0039], line 6, replace "a central" by --the bight section having a central--.

Paragraph [0040], line 7, replace "a central" by --the bight section having a central--.

Paragraph [0041], line 7, replace "a central" by --the bight section having a central--.

Paragraph [0042], line 7, replace "a central" by --the bight section having a central--.

Paragraph [0043], line 7, replace "a central" by --the bight section having a central--.

Paragraph [0044], line 8, replace "a central" by --the bight section having a central--.

In the claims:

1. (Amended) An annular-shaped gasket having ~~a cross section provided with an outer circumferential opening and formed in~~ one of a laterally opening U-shape and a C-shape formed by two legs separated by an outer circumferential opening and interconnecting bight section, comprising annular-shaped voids formed in the innermost circumferential portions on the two confronting flat sealing surfaces of the metal gasket that are in contact with ~~opponent~~ opposing surfaces, each void having a width equal to or more than 40% of ~~the~~ a central wall thickness t_0 of the ~~gasket~~ bight section and a height equal to or more than 5% of the height H of the gasket, wherein the cross section of the gasket is formed in a tuning-fork shape.

2. (Amended) A metal gasket according to claim 1, wherein ~~the~~ a wall thickness t_1 of the ~~portions~~ legs of the metal gasket that are caused to come into contact with the ~~opponent~~ opposing surfaces ~~by tightening is~~ are gradually reduced to 50% of the wall thickness t_1 toward the circumferentially outermost portions of the legs of the metal gasket.

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2. The following is an examiner's statement of reasons for allowance: Prior art (Luthe or Chevallier) teach an annular-shaped gasket having one of a laterally opening U-shape or C-shape formed by two legs separated by an outer circumferential opening and interconnecting bight section but fail to teach or fairly suggest annular-shaped voids formed in the innermost circumferential portions on the two confronting flat sealing surfaces of the metal gasket that are in contact with opposing surfaces, each void having a width equal to or more than 40% of a central wall thickness t_0 of the bight section and a height equal to or more than 5% of the height H of the gasket, wherein the cross section of the gasket is formed in a tuning-fork shape. Furthermore, the metal gaskets according to the present invention can reduce a tightening force necessary to form sealing by forming the cross sections of the gaskets in the tuning-fork shape and providing the voids with the surfaces thereof in contact with opposing surfaces.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. TRBOVICH, JOHNSON et al., WEITZEL, Rode, Luthe, Chevallier et al., Nicholson, Ma et al., Doyle, Spence et al. and Shibata et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford, can be reached on (703) 308-2978.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.


Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: 703-872-9326, for formal communications for entry before Final action: or,
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive, Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP
January 7, 2005


ALISON PICKARD
Primary Patent Examiner
Tech. Center 3600